

Why carry out this study?

- Because sodium-glucose cotransporter-2 (SGLT2) inhibitors promote urinary glucose excretion, their glucose-lowering capacity might be impaired in patients with type 2 diabetes mellitus and reduced renal function.
- No studies have examined the impact of reduced renal function on 24-hour glycemic variability in patients using SGLT2 inhibitors; therefore, we examined the effects of reduced renal function on the glucose-lowering properties of luseogliflozin by 24-hour continuous glucose monitoring.

What was learned from the study?

- The effects of luseogliflozin on lowering postprandial glucose were attenuated in patients with mild-to-moderately reduced renal function compared with normal renal function or normal-to-mildly reduced renal function.
- Improvements in fasting glucose concentrations and reductions in insulin concentrations in patients with mild-to-moderately reduced renal function were similar to those in patients with normal renal function or patients with normal-to-mildly reduced renal function.
- These findings suggest that luseogliflozin improves fasting glucose concentrations without increasing the burden on pancreatic β -cells in patients with mild-to-moderately reduced renal function.

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